AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A kit for diagnosing pulp exposure, said kit comprising a probe syringe used for a pulp exposure probe and a current detector device for obtaining a circuit resistance value or a circuit impedance value from current flowing in an electric closed circuit including said probe syringe,

said probe syringe further comprising;

a thixotropic aqueous dispersed ion conductive paste adapted to be deposited as a layer of ion conductive paste removably retained on a shallow concave on a caries cavity of a tooth,

a discharge part formed with a flexible hollow material and being positioned on a top of said probe syringe for forming an electrical conductive path of the thixotropic ion conductive paste between the caries cavity of a damaged tooth and an electrical conductive member,

a cylinder part continuous to said discharge part and retaining ion conductive paste,

a piston inserted to said cylinder part, and

an electric conductive member for ensuring electrical conductivity between an inner part and an outer part of the syringe connecting inner and outer areas of said probe syringe, and

wherein said current detector device obtains said circuit resistance value or impedance value flowing in said closed circuit through said thixotropic ion conductive paste.

2. (Original) The kit of claim 1, wherein said discharge part is made from hollow silicone rubber, and said electric conductive member is disposed across said discharge part.

3. (Previously Presented) The kit of claim 1, wherein said thixotropic ion conductive paste comprises a thixotropic ion conductive material selected from propylene glycol, polyvinylalcohol, hydroxy-ethyl-cellulose, gelatin, polyacrylacid, carboxy-methyl-cellulose, sodium poly-acrylacid, and sodium carboxy-methyl-cellulose.

4. (Currently Amended) A probe syringe for diagnosing pulp exposure, said probe syringe comprising,

a thixotropic aqueous dispersed ion conductive paste adapted to be deposited on a shallow concave on a caries cavity of a tooth to form a layer of ion conductive paste removably retained on the tooth,

a discharge part formed with a flexible hollow material and being positioned on a top of said probe syringe for forming an electrical conductive path of the thixotropic ion conductive paste between the caries cavity of a damaged tooth and an electrical conductive member,

a cylinder part continuous to said discharge part and retaining the thixotropic ion conductive paste,

a piston inserted to said cylinder part, and

an electric conductive member for ensuring electric conductivity between an inner part and an outer part of the syringe connecting inner and outer areas of said probe syringe,

wherein said electric conductive member allows to flow current through said thixotropic ion conductive paste to form an electric conductive circuit including said ion conductive paste used as a probe for diagnosing pulp exposure.

5. (Original) The probe syringe of claim 4, wherein said discharge part is made from hollow silicone rubber, and said electric conductive member is disposed across said discharge part.

6. (Previously Presented) The probe syringe of claim 4, wherein said thixotropic ion conductive paste comprises an ion conductive material selected from propylene glycol, polyvinylalcohol, hydroxy-ethyl-cellulose, gelatin, polyacrylacid, carboxy-methyl-cellulose, sodium poly-acrylacid, and sodium carboxy-methyl-cellulose.

7. (Original) The probe syringe of claim 6, wherein said ion conductive paste has the viscosity from 0.1 Pa·s to 5 Pa·s.

8. (Currently Amended) A probe syringe for forming a layer of thixotropic ~~ionic~~ aqueous dispersed ion conductive paste ~~including aqueous dispersion~~ on a damaged tooth, said probe syringe comprising,

a thixotropic aqueous dispersed ion conductive paste,

a discharge part including a top part for discharging said thixotropic ion conductive paste on the damaged tooth and formed so as to ensure electric conductivity between an inner part and an outer part of the syringe connecting inner and outer areas of said probe syringe,

a cylinder part continuous to said discharge part and retaining the ion conductive paste, and

a piston inserted to said cylinder part,

wherein said electric conductive member allows to flow current through said ion conductive paste to form an electric conductive circuit including the thixotropic ion conductive paste used as a probe for diagnosing pulp exposure.

9. (Previous Presented) The probe syringe of claim 8, wherein said thixotropic ion conductive paste has the viscosity from 0.1 Pa·s to 5 Pa·s and thixotropy

10. (Previously Presented) The probe syringe of claim 9, wherein said thixotropic ion conductive paste comprises an ion conductive material selected from propylene glycol, polyvinylalcohol, hydroxy-ethyl-cellulose, gelatin, polyacrylacid, carboxy-methyl-cellulose, sodium poly-acrylacid, and sodium carboxy-methyl-cellulose.